

REMARKS

Claim 18 has been canceled. Claims 11, 14, and 17 have been amended. New claim 21 has been added. Claim 17 has been amended to incorporate the limitation recited by canceled claim 18. An informality was noted and corrected in Claim 11 that now depends on claim 3. New claim 21 is similar to claim 11 but depends from claim 5. Claims 1-17, 19-21 are currently pending in the present application. No new matter has been added. Reexamination and reconsideration of the application are respectfully requested.

REJECTION OF CLAIMS 1-5 & 15-20 UNDER 35 U.S.C. 102(b)

Claims 1-5 & 15-20 are rejected under 35 U.S.C. 102(b) for the reasons set forth on pages 2-3 of the Action. Specifically, claims 1-5 & 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Lo et al. (U.S. Pat. No. 6,046,646, hereinafter referred to as "Lo" or "the Lo reference").

The rejections under 35 U.S.C. 102(b) are respectfully traversed, at least insofar as applied to the amended claims, and reconsideration and reexamination of the application is respectfully requested for the reasons set forth herein below.

The Federal Circuit has ruled, "Under 35 U.S.C. §102, anticipation requires that each and every element of the claimed invention be disclosed in the prior art. . . . In addition, the prior art reference must be enabling, thus placing the allegedly disclosed matter in the possession of the public." Akzo N.V. v. United States Int'l Trade Comm'n, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987). [emphasis added.]

Furthermore, the Federal Circuit has held, "Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." W.L. Gore & Assocs. v. Garlock, Inc., 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). [emphasis added.]

Col. 3, lines 8-15, col. 6, lines 1-11, and Figure 6 of the Lo reference are cited as teaching the invention as claimed. In particular, elements 302, 304, 306, 308, 310, 312, 317, 318, 324, 326, 328, 330, 334, 336, 346, 348 of the Lo reference are cited as teaching the claimed invention. However, it is respectfully submitted that the Lo reference fails to teach or suggest each and every element of the claimed invention.

Specifically, the Lo reference fails to fairly teach or suggest inter alia the following claim limitation: "a VCO input voltage modulation mechanism, coupled to the VCO input voltage node for modulating the voltage at the VCO input voltage node to generate a spread spectrum clock," as claimed in claim 1.

The Action cites element 332 as teaching the VCO input voltage modulation mechanism as claimed. However, element 332 does not fairly teach the VCO input voltage modulation mechanism as claimed because element 332 is connected to and affects an internal node 344 of the loop filter 318 and not the VCO input voltage node as claimed.

Consequently, it is respectfully submitted that the Lo reference fails to fairly teach the circuit and method as claimed in claims 1 and 15, respectively.

It is noted that the dependent claims incorporate all the limitations of independent claims 1 and 15, respectively. Furthermore, the dependent claims also add additional limitations, thereby making the dependent claims a fortiori and independently patentable over the cited references.

In view of the foregoing, it is respectfully submitted that the Lo reference fails to teach or suggest the circuit and method as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. section 102(b) be withdrawn.

REJECTION OF CLAIMS 6-9 & 10-14 UNDER 35 U.S.C. 103(a)

Claims 6-9 are rejected under 35 U.S.C. 103 for the reasons set forth on pages 3-6 of the Action. Specifically, claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lo in view of Tiede (U.S. Pat. No. 6,736,474, hereinafter referred to as "Tiede" or "the Tiede reference").

Specifically, col. 2, lines 36-53, col. 2, lines 59-67, and figures 3 and 5 of Tiede are cited as disclosing the invention as claimed in claims 6-9. The rejections under 35 U.S.C. 103 are respectfully traversed, at least insofar as applied to the amended claims, and reconsideration and reexamination of the application is respectfully requested for the reasons set forth hereinbelow. In particular, the combination of Lo and Tiede is contested as improper for the reasons advanced below. Moreover, even if this combination were proper, which is not conceded, the resulting combination would still fail to teach or suggest the claimed invention.

It is respectfully submitted that even if the Lo reference and Tiede reference or the Lo reference and Chang reference were properly combined, which is not conceded, Lo, whether alone or in combination with Tiede or Chang, fails to teach or suggest the specific limitations recited by the claims.

Specifically, regarding claims 6-7, Lo, whether alone or in combination with Tiede, fails to teach or suggest "a first transistor .. a gate electrode for receiving a first shift-up control signal; a second transistor .. a gate electrode for receiving a shift-up control enable signal" as claimed in claim 6. Transistor 90 is cited to disclose the first

transistor as claimed, and transistor 88 is cited to disclose the second transistor as claimed. However, it is noted that the gates of transistor 90 and 80 are not coupled to receive first shift-up control signal and shift-up control enable signal, respectively, as claimed. Instead, the gate of transistor 90 is coupled to the source of transistor 90. Also, the gate of transistor 88 is coupled to Vpp2, which is not described by Tiede as a shift-up control enable signal.

Similarly, regarding claims 8-9, transistors 90 and 88 of FIG. 5 of Tiede do not fairly teach or suggest the first and second transistors as claimed in claim 8. For example, the cited portions of Tiede fail to fairly disclose the specific connections of the gate, drain and source to particular nodes or signals as claimed.

In view of the foregoing, it is respectfully submitted that the Lo reference, whether alone or in combination with the Tiede reference, fails to teach or suggest the circuit as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

Claims 10-14 are rejected under 35 U.S.C. 103(a) for the reasons set forth on pages 6-8 of the Action. Specifically, claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lo in view of Chang (U.S. Pat. No. 6,606,005, hereinafter referred to as "Chang" or "the Chang reference").

Regarding claims 11-12, and 14, on page 7 the Action refers to col. 1, lines 23-28, col. 5, lines 50-59, FIG. 5A, and element 35, Vc1 and Vc2 of Chang as disclosing the invention as claimed by claims 11, 12, and 14. In particular, the Action states that element 35 teaches the plurality of delay cells as claimed. However, it is respectfully submitted that element 35 does not fairly teach or suggest the plurality of delay cells as claimed because it appears that element 35 is very different from the delay cells as

claimed. For example, element 35 of Chang is described as "third current trace" that includes "i" sets of transistor $mp(i)$, a switch $sw(i)$, and a transistor $mn(i)$ connected in series (col. 5, lines 3-5). Furthermore, the structure of switch $sw(i)$ is shown in FIGS. 5B and 5C and described in col. 5, lines 60-64 and col. 6, lines 11-36. The description of element 35 by Chang does not fairly disclose the programmable delay elements as claimed.

Moreover, the Action states that the signals $Vc1$ and $Vc2$ of Chang disclose the shift-up signals and the shift down control signals, respectively, as claimed. However, it is respectfully submitted that $Vc1$ and $Vc2$ are connected to two different components and perform different functions than the shift-up signals and the shift down control signals as claimed. $Vc1$ is provided to VCO1 22 and $Vc2$ 24 (see FIG. 1 of Chang) is provided to VCO2, whereas the shift-up signals and the shift down control signals control the voltage shift up mechanism and the voltage shift down mechanism. The $Vc1$ signal is used by VCO 22 to generate a "stable feedback clock F_{vco} (col. 4, lines 48-50). The $Vc2$ signal is used by VCO 24 to generate a spread spectrum clock F_{vco2} (col. 4, lines 51-52).

Furthermore, the shift-up signals and the shift down control signals, as claimed, are not provided to a VCO, but instead are provided to a voltage shift up mechanism or a voltage shift down mechanism (see claims 3 and 5 from which claims 11 and 21 depend, respectively). It is respectfully submitted that VCOs 22 and 24 are different from the voltage shift up mechanism and the voltage shift down mechanism as claimed.

In view of the foregoing, it is respectfully submitted that the Lo reference, whether alone or in combination with the Chang reference, fails to teach or suggest the

circuit as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

It is respectfully submitted that the Lo, Tiede, and Chang references are improperly combined. It appears that the Action uses improper hindsight to selectively pick teachings from Lo, teachings from Tiede, and teachings from Chang to arrive at the claimed invention.

Consequently, it appears that the current patent application has been improperly used as a basis for the motivation to combine or modify the components selected from Lo, Tiede, or Chang to arrive at the claimed invention. Stated differently, the proposed combination of the cited references appears to be based on impermissible hindsight reconstruction.

The Federal Circuit has held, "It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated, "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." (quoting *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988)), *In re Fritch*, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992). [emphasis added.]

In view of the foregoing, it is respectfully submitted that the Lo reference, whether alone or in combination with the Chang reference, fails to teach or suggest the circuit as claimed. Accordingly, it is respectfully requested that the claim rejections under 35 U.S.C. Section 103(a) be withdrawn.

Conclusion

For all the reasons advanced above, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the pending claims are requested, and allowance is earnestly solicited at an early date. The Examiner is invited to telephone the undersigned if the Examiner has any suggestions, thoughts or comments, which might expedite the prosecution of this case.

Respectfully submitted,



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I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office (fax no.: 571-273-8300) on the date below.


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Nov. 11, 2005
(Date)